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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,545	07/01/2003	Stephen M. Dershem	QUANT1280-2 (028248-1704)	3581
30542	7590	09/24/2004	EXAMINER	
FOLEY & LARDNER P.O. BOX 80278 SAN DIEGO, CA 92138-0278			ASINOVSKY, OLGA	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/612,545

Applicant(s)

DERSCHEM ET AL.

Examiner

Olga Asinovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 08/25/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-37 of U.S. Patent No. 6,423,780. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-37 disclose a heterobifunctional monomer having the chemical structure that is readable in the present claims. The plurality of heterobifunctional monomers are polymerizing for producing a polymer or a block copolymer, wherein said polymer and block copolymer are analogous to the present claimed polymer and block copolymer. Claims 1-37 also disclose a method for synthesizing heterobifunctional monomers and a method for producing a polymer having a heterobifunctional monomer by a Zeigler-type catalyst.

The difference between the present claims and claims 1-37 of Patent 6,423,780 is that the Y radical in the formula for a heterobifunctional monomer in the present claims is selected from broader functional groups than in claims 1-37 of Patent 6,423,780. It would have been obvious to one of ordinary skill in the art to

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consider that each functional group for the heterobifunctional monomer works within the same expectation for obtaining the same results. Thus, it would have been obvious to one of ordinary skill in the art to select the functional groups in the present claims for being the same as cited in claims 1-37 of Patent no. 6,423,780, and, thereby obtain the same heterobifunction monomer and a polymer produced from the same polymerizable monomer.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Lipian et al U.S. Patent 6,455,650=WO 00/20472.

Patent 6,455,650 belongs to the patent family to WO 00/20472 cited by applicants.

Lipian discloses a polymerizable polycycloolefin composition comprising a high activity catalyst system. The polycycloolefin monomers represented by the chemical structures VII and VIIa at column 30 and column 32 are readable in the present claims for being a polymerizable heterobifunctional monomer in the present claims. The cycloolefin monomer includes an unsaturation and functional group. The functional groups are readable in the present claims, column 30, lines 10-67 and column 31 through column 32. The heterobifunctional monomer having a maleimide moiety is readable in applicants' claim 6. A polymerization process includes the ring opening polymerization process using a single or multicomponent catalyst system, column 2, lines 40-62, for the

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present claims 23, 27-29. A catalyst system includes transition metal. The reaction for making a polymer in Lipian's invention is readable in applicants' claimed Zeigler-type coordinative reaction, for the present claims 23, 27-29. A method of producing a polymer by a free radical mechanism discloses in the reference at column 38, lines 15, 40-67 and column 39, lines 1-45. The polymers are useful in electronic and optical application, column 43, lines 57-67, for the present claim 42. The polymer can be used as a dielectric film. Making multilayer article having a said dielectric film is obvious for the present claims 38-41.

Reference does not disclose a block copolymer for the present claim 18. However, reference discloses a graft copolymer or crosslinking polymer containing at least two norbornene-type moieties, column 32, lines 56-65. Therefore, a block copolymer is equivalent as being a graft copolymer containing at least two polymerizable norbornene-type moieties.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art to WO 00/20472 has been discussed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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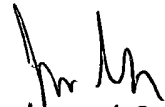
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Olga Asinovsky  
Examiner  
Art Unit 1711

O.A.

O.A.

September 13, 2004

  
James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700